

What is claimed is:

1. A bacterium containing F' genetic material capable of an enhanced transformation efficiency.
- 5 2. The bacterium according to claim 1, wherein said bacterium is an Enterobacteriaceae.
3. The bacterium according to claim 2, wherein said bacterium is of the genus *Escherichia*.
4. The bacterium according to claim 3, wherein said bacterium is an *Escherichia coli* (*E.coli*).
- 10 5. The *E. coli* bacterium according to claim 4, wherein said bacterium is DH5 $\alpha$  or a derivative thereof or an equivalent thereof.
6. The *E. coli* bacterium according to claim 5, wherein said bacterium is DH5 $\alpha$ .
- 15 7. The *E. coli* bacterium according to claim 4, wherein said bacterium contains an F' plasmid.
8. The *E. coli* bacterium according to claim 4, wherein said bacterium contains F' genetic material integrated in the bacterium's genome.
9. The *E. coli* bacterium according to claim 5, wherein said bacterium contains an F' plasmid.
- 20 10. The *E. coli* bacterium according to claim 5, wherein said bacterium contains F' genetic material integrated in the bacterium.
11. The *E. coli* bacterium according to claim 4, further comprising exogenous DNA that replicates independently of the bacterial chromosome.

12. The *E. coli* bacterium according to claim 11, further comprising plasmid DNA.

13. The *E. coli* bacterium according to claim 10, further comprising lambda DNA.

5 14. The *E. coli* bacterium according to claim 4, wherein the F' genetic material is derived from the F' genetic material of XL1-Blue.

15. An *E. coli* bacterium according to claim 4, wherein the F' genetic material is derived from the F' genetic material of XL2-Blue.

10 16. A process for producing a bacterium capable of an enhanced transformation efficiency, comprising the following steps:

- (a) introducing F' genetic material into a bacterium;
  - (b) selecting said bacterium containing said F' genetic material; and
  - (c) recovering said bacterium containing F' genetic material.
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17. The process according to claim 16, wherein said bacterium is of the genus *Escherichia*.

18. The process according to claim 17, wherein said bacterium is an *Escherichia coli* (*E.coli*).

20 19. The process according to claim 18, wherein said bacterium is DH5 $\alpha$  or a derivative thereof or an equivalent thereof.

20. The process according to claim 19, wherein said bacterium is DH5 $\alpha$ .

21. A process for preparing competent bacteria comprising the following steps:

- (a) growing a bacterium containing F' genetic material capable of an enhanced transformation efficiency in a growth-conductive medium; and
- (b) rendering said bacterium competent.

5      22. The process according to claim 21, wherein said bacterium is of the genus *Escherichia*.

23. The process according to claim 22, wherein said bacterium is an *Escherichia coli* (*E.coli*).

10      24. The process according to claim 23, wherein said bacterium is DH5 $\alpha$  or a derivative thereof or an equivalent thereof.

25. The process according to claim 24, wherein said bacterium is DH5 $\alpha$ .

26. A preparation of competent bacteria, wherein said preparation is produced by the process comprising:

- 15      (a) growing a bacterium containing F' genetic material capable of an enhanced transformation efficiency in a growth-conductive medium; and
- (b) rendering said bacterium competent.

27. The preparation according to claim 26, wherein said bacterium is of the genus *Escherichia*.

20      28. The preparation according to claim 27, wherein said bacterium is an *Escherichia coli* (*E.coli*).

29. The preparation according to claim 28, wherein said bacterium is DH5 $\alpha$  or a derivative thereof or an equivalent thereof.

25      30. The preparation according to claim 29, wherein said bacterium is DH5 $\alpha$ .